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37/00

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(71) Applicant (*for all designated States except US*): **SUN PHARMACEUTICAL INDUSTRIES LIMITED** [IN/IN]; Acme Plaza, Andheri-Kurla Road, Andheri (East), Mumbai 400 059 (IN).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **DHARMADHIKARI, Nitin, Bhalachandra** [IN/IN]; 17/B, Mahal Industrial Estate, Off Mahakali Caves Road, Andheri (East), Mumbai 400 093 (IN). **ZALA, Yashoraj, Rupsinh** [IN/IN]; 17/B, Mahal Industrial Estate, Off Mahakali Caves Road, Andheri (East), Mumbai 400 093 (IN).

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i)) for all designations*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *of inventorship (Rule 4.17(iv)) for US only*

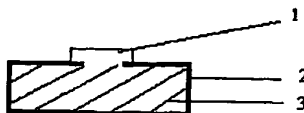
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROGRAMMED DRUG DELIVERY SYSTEM



(57) Abstract: The present invention provides a programmed drug delivery system comprising: (a) a core (3) composition comprising one or more beneficial agents and pharmaceutically acceptable excipients, wherein at least one excipient swells when exposed to an aqueous environment, (b) a coat (2) surrounding the core composition, wherein the coat is impermeable to the beneficial agent and other core components, but may be permeable or impermeable to water, (c) passageway in the coat, (d) a composition (1) applied so as to cover the passageway, and (e) optionally, an immediate release composition comprising the same or different beneficial agent.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN 2004/000092

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁷: A61M 31/00, 37/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: A61M 31/00, 37/00, A61K 9/00, 9/20, 9/22, 9/24, 9/26, 9/52, 9/54, 9/56, 9/58

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPODOC, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/0136744 A1 (M.McGLYNN et al.) 26 September 2002 (26.09.2002) <i>the whole document; esp. par. [0021] - [0026], [0032] - [0034], [0152], [0155] - [0159], claim 1, 17.</i>	1,3-9,11,12, 16,18
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Y	WO 2000/025757 A1 (MERCK & CO) 11 May 2000 (11.05.2000) <i>the whole document; esp. page 2, lines 16-26; page 17, line 23 - page 19, line 14; claims 1, 7.</i>	1,3-9,11,12, 16,18
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Y	EP 0549331 A1 (MERCK & CO) 30 June 1993 (30.06.1993) <i>the whole document; esp. figure 1; abstract; page 3, lines 7-34, 40-54; claim 1.</i>	1,3-9,11,12, 16,18
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☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
11 April 2005 (11.04.2005)Date of mailing of the international search report
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Austrian Patent Office
Dresdner Straße 87, A-1200 Vienna

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LUDWIG H.

Facsimile No. +43 / 1 / 534 24 / 535

Telephone No. +43 / 1 / 534 24 / 340

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN 2004/000092

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4976967 A (G.McCLELLAND et al.) 11 December 1990 (11.12.1990) <i>the whole document; esp. abstract; figure 1; column 2, lines 58-68; column 4, lines 12-38.</i>	1,3-9,11,12, 16,18
Y	-- EP 0427519 A2 (MERCK & CO.) 15 May 1991 (15.05.1991) <i>the whole document; esp. abstract; figures 2,4; page 4, lines 12 - 24; page 5, lines 31 - 44; claims 1,7,9.</i>	1,3-9,11,12, 16,18
Y	-- WO 2002/011702 A2 (PFIZER PROD.) 14 February 2002 (14.02.2002) <i>the whole document; esp. figures 3,4; page 7, lines 22-37; page 16, lines 31-35; page 20, line 30 - page 21, line 9; page 25, lines 2-31; page 28, lines 2-20; claims 2,18,19.</i>	1,3-9,11,12, 16,18
Y	-- US 4857336 A (S. KHANNA et al.) 15 August 1989 (15.08.1989) <i>the whole document; esp. abstract; column 2, line 61 - column 3, line 4; column 3, lines 14-20; column 4, lines 40-58; column 5, lines 17-26; column 6, line 64 - column 7, line 19; column 7, line 34 - column 8, line 3; claims 1,2.</i>	1,3-9,11,12, 16,18
Y	-- US 5795591 A (ALZA CORP.) 18 August 1998 (18.08.1998) <i>the whole document; esp. figure 1; column 1, lines 8-14, 34-37; column 7, lines 25-28; column 10, lines 9-24; claim 1.</i>	1,3-9,11,12, 16,18
Y	-- DE 3629994 A1 (E. WEISSENBACHER) 17 March 1988 (17.03.1988) <i>abstract; figures 1a, 1b; column 6, lines 14-19.</i>	1,3,4-9,11,12, 16,18
Y	-- EP 1095650 A1 (UNIV. LEIDEN) 2 May 2001 (02.05.2001) <i>abstract; figures 3-5; paragraph [0013] - [0015], [0018], [0024], [0071], [0081], [0094] - [0096], [0100], claims 10,11,13.</i>	1,3-9,11,12, 16,18
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Y	-- US 5226902 A (Y.BAE et al.) 13 July 1993 (13.07.1993) <i>abstract; figures 3,4; column 4, lines 33-50; column 5, lines 21-49; claims 1-10.</i>	1,3-9,11,12, 16,18
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INTERNATIONAL SEARCH REPORT

International application No.
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A

US 4874388 A (P.WONG et al.) 17 October 1989 (17.10.1989)
*figures 7,9,10; column 11, line 56 - column 12, line 9; column 12,
lines 38 - 68.*

10,17

Continuation of first sheet**Certain claims were found unsearchable:**

Observations where certain claims were found unsearchable

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

Claims Nos.: 5 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

claim 5 is incomprehensible because an beneficial agent cannot cause bleeding and irritations of the gastric mucosa.

Continuation No. IV:**Text of the abstract**

(Continuation of item 5 of the first sheet)

The present invention provides a programmed drug delivery system comprising:

- (a) a core (3) composition comprising one or more beneficial agents and pharmaceutically acceptable excipients, wherein at least one excipient swells when exposed to an aqueous environment,
 - (b) a coat (2) surrounding the core composition, wherein the coat is impermeable to the beneficial agent and other core components, but may be permeable or impermeable to water,
 - (c) a passageway in the coat,
 - (d) a composition (1) applied so as to cover the passageway, and
 - (e) optionally, an immediate release composition comprising the same or different beneficial agent.
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/IN 2004/000092

Patent document cited in search report			Publication date	Patent family member(s)			Publication date
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				HK	A	199696	1996-11-08
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		02					